BaseCamp
Boot Camp

ROUTE PLANNING WITH THE
GARMIN BASECAMP SOFTWARE.

Words by Jess Fogarty.

Many of us are familiar with Garmin's tried-and-tested MapSource software, but as this software has been discontinued, it's probably a good idea to start moving over to its replacement, BaseCamp. This article will show you how to plot routes on your computer, find waypoints, transfer routes to your GPS, and more.

If you're a beginner GPS navigator, begin with BaseCamp. You won't have crossover issues, and BaseCamp is sure to be around for quite a while. Both programmes use the same maps, but BaseCamp is the only one that'll work on a Mac.

Mapsource (MS) works on a file-based system – meaning that your data (waypoints, tracks and routes) are stored in a file; GDB and GPX files. Here you can create waypoints, tracks and routes for a trip and save these in a file and re-open them at a later stage.

Basecamp (BC) on the other hand works on a library-based system. Here the data is always available in the application, but saved in separate folders or lists. You can still import and export GPX and GDB files, but in BC it will still be organised in folders and lists. Now you can create and modify folders and lists at will.

There are also a few fundamental differences in the way data is sorted in a folder or list. In MS you would have separate tabs for waypoints, tracks and routes which make it easy to see what you are working with, whereas BC just have a list of all your data mixed together. There is a data filter at the bottom of the list **❶** which can be used to see only a specific type of data at one time.

BC is available from the Garmin website for free (www.garmin.com/en-US/shop/downloads/basecamp), and

although discontinued, MapSource was still available at time of writing (www8.garmin.com/support/download_details.jsp?id=209).

TO GET IT WORKING

In order for the route planning to work, you must install your Tracks4Africa (T4A) and Garmin maps onto your computer. If you get new software, you must make sure that you delete or uninstall older versions from your computer first, and then download BaseCamp software, which can be found on the Garmin website for free, see previous paragraph.

YOUR MAPS

There are several mapsets you can use on your Garmin GPS and BC software. Garmin City Navigator is preloaded software, on some units such as the Nuvi devices. Garmap is for sale as an aftermarket product and preloaded on selected outdoor units but Garmap has announced their final version of the software as it will soon be discontinued. The Tracks4Africa mapsets are also sold as an aftermarket product.

To use these maps on BC you have two options. If you bought the T4A mapset online or on SD card, it can be installed to your computer and will be available within BC at any time. When you plug the T4A SD card into your computer, you will find *PC Install Files*, *Mac Install Files*, and an installation guide.

If you have a GPS with preloaded maps, e.g. Garmin City Navigator, then you can use these maps by connecting your GPS via its USB cable to your computer. BC will recognise the

GPS and read all available map sets and data on the GPS. The maps are then available for use in BC for as long as the GPS is connected to the computer.

For those of you who do not know T4A, they focus on overland travel; the roads and tracks on these maps have been submitted by fellow travellers and they are filled with points of interest that are relevant to the overland way of travel. The coverage is also the entire African continent! The T4A maps, however, are not great for city navigation in SA and don't support address lookup, so for that you would want Garmin City Navigator or Garmap. T4A shows many hiking trails, 4x4 trails, and unmarked roads, making this mapset extremely useful to the overland traveller. On the T4A website, you can also find "Special Maps" under the T4A Maps tab. These include specific hiking- and off-road trails, which you can then download for free and overlay onto the other maps on your GPS. On these longer, more extreme routes, the maps include huts, caves, water sources, etc.

PLOTTING YOUR ROUTE

Using the software is quite self-explanatory; the tool buttons are visible, and if you spend five minutes playing around with the 'view' and 'tools' tabs, then it all makes sense.

There are various ways to create routes in BC, as is the case with MS, but we will propose a specific way of plotting routes based on our experience with BC, MS and the Garmin GPS – assuming you want to create a single route for a day's travel; but you can create multiple routes for each leg of your trip as well.

The first thing you do is create waypoints on which all routes will be based. This includes the start and end of a route as well as any specific points you want to visit along your route. This

is because your GPS will always take you on the shortest or fastest route possible, which will often take you along the duller, straighter tar roads, or make you miss any points of interest you might have wanted to see along your way.

This is also wise because it has been known for routes transferred from computer to GPS to *wig out* once they have been transferred. There are several reasons for this but the main reason is that your GPS will recalculate all of your routes once loaded and that may lead to unpredictable results. These are often caused by different versions of the software being used on each device, or different settings between your computer and GPS – so play it safe and plot your waypoints first. We find that if you do your planning properly, you can get away with transferring just the waypoints you created for your trip. No one wants to be lost in the deep dark middle-of-nowhere with a GPS that doesn't even know where you are!

The *find* options were somewhat easier to navigate on MS, but, if you're just starting, BC won't be too tricky. In order to search for a location, trail, or hotel, you'll need to have the map zoomed in on the specific area you're trying to find such a facility in, and then you type in what you're looking for in the search bar on the top right of the screen **❷**. This need not be on the exact location, but can be the town or province where you know the point to be. The search will come up with results for the area of map shown on the screen.

Different types of waypoints are indicated by different icons; for instance, a tent icon is used to indicate a campsite, a tree represents a nature reserve, a fish is a fishing spot, or a house icon indicates accommodation. To save a waypoint, hover the mouse over the point; if there are many waypoints in the area, then a speech bubble will pop up with multiple names, all with categorised symbols **❸**. Next, select the one that you are ▶
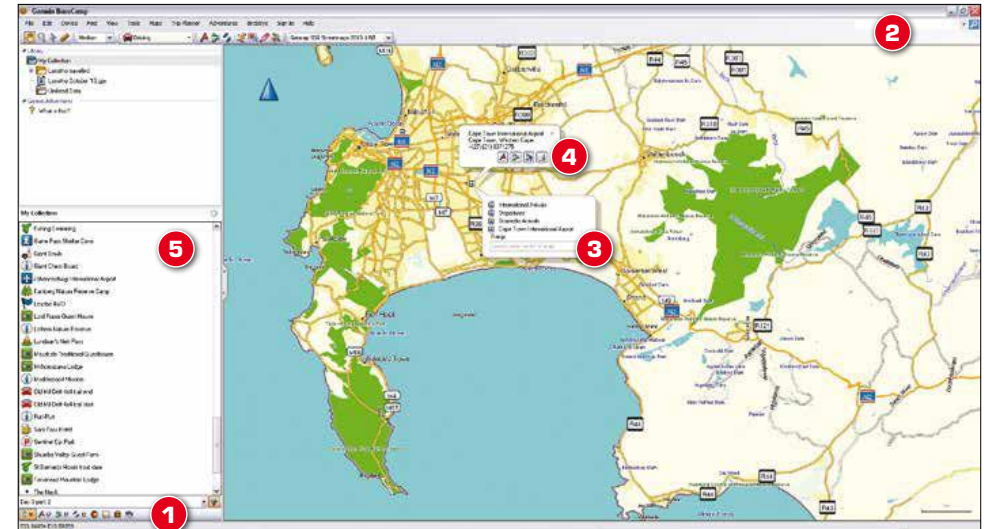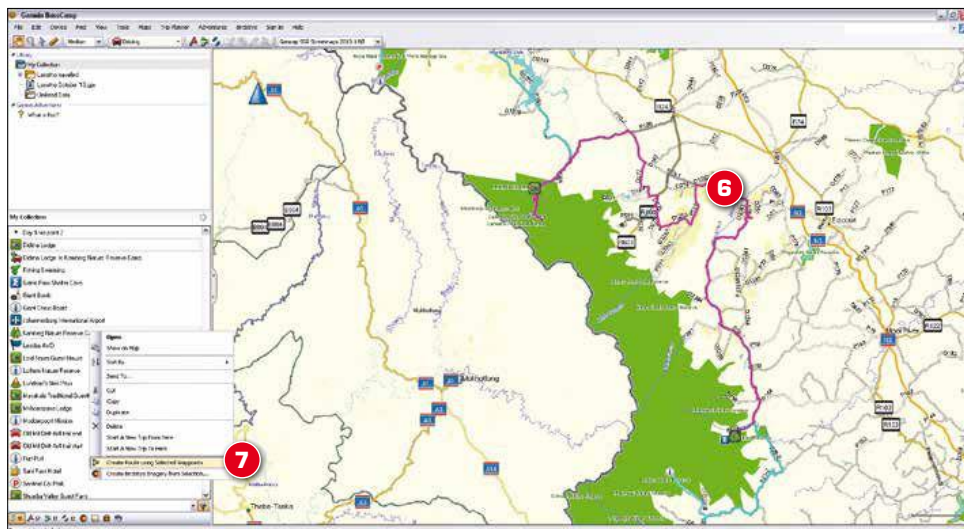
looking for, and the information for the waypoint will pop up with whatever information is available – such as the name, location and sometimes a telephone number ④.

Finally, select the red flag symbol on the bottom right of the bubble to *create a waypoint at selected result(s)*. This will then be saved in your library panel on the left hand side in *My Collection*, where you can save waypoints into separate folders for different trips, or days of that trip ⑤.

All the data that is found on both MS and BC is available on your GPS, provided the software is the same. You can save or edit your waypoints on your computer and then transfer them to your GPS. Bear in mind that it's better to plot your route on MS or BC first, as creating a route on your GPS will result in its automatically creating the fastest or shortest route possible. Great for day-to-day travel, but it might exclude specific roads or points of interest you wish to cover.

If you aren't sure if the route is correct, or open, or joining, you can check the waypoints or co-ordinates on the T4A website with the T4A Africa map. MS previously had a Google Earth layer where you could check all your waypoints, but this facility is no longer available.

If you're trying to plot a route and the highlighted route ⑥ jumps into a rather large detour, zoom in extremely close, or use the T4A Africa map to check it out. Sometimes the road may be blocked by a fence, or washed away, or it just doesn't join up. It's safer to look it up than hope it will work out on the ground.

Once you have all of your waypoints saved, you can use them to plot your route. Select multiple waypoints from your collection – in the order that you wish to travel to them – then right-click and select *Create route using selected Waypoints* ⑦.

The route will appear as a bright Magenta outline on your map, and then a speech bubble will pop up with the name of the route and its symbol ⑧. If you then click on the name in either the speech bubble or your library, it will open a menu with all the information on the route – including via points, elapsed time, distance and co-ordinates.

In this menu, you can change the colour of your route ⑨ to distinguish between days; or change your mode of transportation ⑩ between hiking, driving, cycling etc., to give you the most accurate estimations possible. The *Route Directions* tab ⑪ will give you plotted instructions for the route which you can then print out if you don't have a GPS – or just in case. If you don't see all of these details, make sure that the *More Info* box in the bottom left corner of the window is ticked. ⑫.

The information given here includes road quality, speed limits, and type of tracks, giving a very specific and accurate estimate of the time it should take you to travel these roads – even in national parks – driving at normal speeds.

Sometimes the route created will be shown *as the crow flies*. This is a slight bug in the system, but is, in fact, easy to fix. Just click on *Recalculate* at the bottom right of the window ⑬. This will get the route moving along the correct route via all of your selected waypoints. If this still doesn't work, look closer. A waypoint that you have saved may be not directly on the road, therefore making it impossible for BC to calculate a route incorporating it.

SAVING YOUR ROUTES

After you have plotted and saved your routes, BACK THEM UP! As I discovered first-hand, if you don't back up your routes and then update your software, you could lose your routes, waypoints, and trips – everything you've spent ages modifying and adjusting!
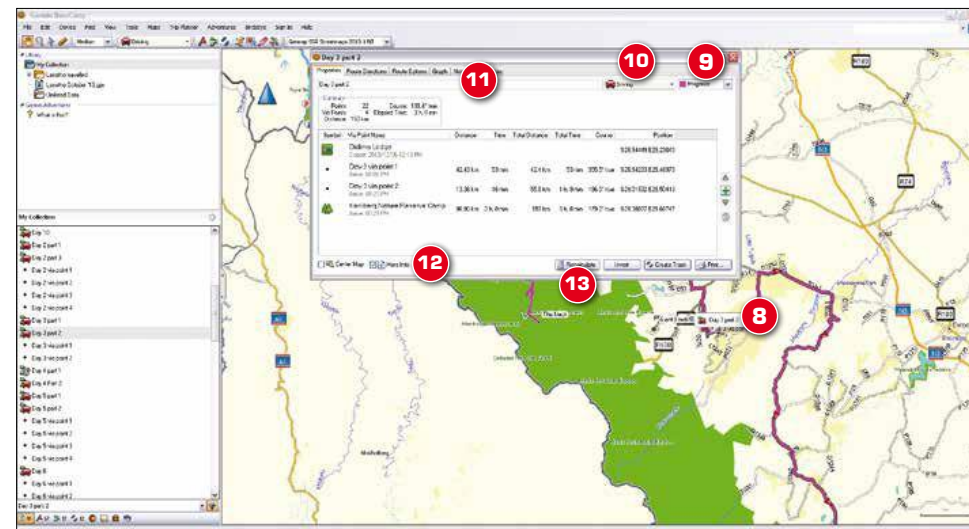
You can back up by selecting the folder in which you saved your waypoints and routes. Then click on *File* and select *Export*; the program will then ask where you would like to save the files, and will then back them up in GPX format. This format can only be read by BC, MS or your GPS – so don't be concerned if you don't recognise the file type, or cannot open them anywhere else.

As it's wiser to save your individual waypoints to your GPS – as opposed to saving the whole route – you can rename them *Day 1 lunch stop* etc before you transfer them. This makes them easier to find at a later stage. Just remember to have EXACTLY the same versions of the software.

With MS, you can export your routes to an Excel document for a quick and easy itinerary. Unfortunately, with BC there are no shortcuts with a PC, but you can export these waypoints on a Mac computer using the Mac calendar application *iCal* to assign a day to each route, or copy them into Excel for your itinerary.

To transfer all of your waypoints to your GPS device – or from it – select the folder or specific waypoint you wish to transfer, then click on *Device* in the toolbar, and select either *Send to Device* or *Receive from Device*.

YOUR PERSONAL SETTINGS

Using *Options*, you can change your settings for all manner of reasons. To access this customisation, click on *Edit* in your toolbar, and then select *Options*. (Or you can use the shortcut Ctrl+O).

The first option on the left panel will be *Measurements*; here you must select the Metric system of measurement, as well as set your default co-ordinate format under the *Position* heading. The *Display*, *Software Update* and *General* tabs can be left as they are, unless you have specific preferences.

The next to consider is the *Activity Profile*; here you can choose your mode of transportation at the top, which will adjust your speed of travel, as well as routes calculated. Underneath this option are the *General* and *Routing* tabs; select *Routing*, as this is one of the more important changes. Unselect all of the *Road Type Avoidances* and the *Feature Type Avoidances*; these will cause your GPS to reroute you around certain elements which do not affect us in SA or when you are in an off-road vehicle.

At the very bottom is the *Speed* setting with the option to *Customise* your average speed; LEAVE THIS ALONE! This average has been calculated using GPS data submitted to T4A by people who've driven those roads. This could be a highway with terrible upkeep, so if it suggests that it'll take you five hours to drive 300 km of tar, then listen to the software! Pit-stops and your driving style are bound to change the estimated time to some extent, but, as I know from personal experience, T4A has its estimations down to a fine art.

If you are searching for co-ordinates and the format looks like nothing you've ever seen before – don't panic. If you click on *Find* in the toolbar, and then select *Locate Coordinates* or use the shortcut Ctrl+T, a window will pop up for you to enter the numbers. In this window you must select the *Select a grid* option and then click on the drop-down menu. There are plenty of co-ordinate types that you've probably never seen before, but if you go alphabetically to *Lat/Long* then you will see the more familiar ones. Here you can select the correct format you need, instead of having to attempt to convert the co-ordinates. You can then create a waypoint here or re-centre the map to this point.

If you aren't well versed in the different co-ordinate formats, brush up by reading *Speaking The Same Language* in our April 2013 issue. ▸

When planning your trip, there are many variations to consider – and one is your travelling party. Are you travelling with kids? We all know how they can be on long car trips, so then you would want to have fewer travelling hours per day. Or, if you're travelling in a convoy, consider that this sort of trip always takes longer than planned. If you're travelling alone, things seem to move much faster, but plot in rest-stops for a cup of coffee and a walk-around to keep you on top form.

Don't rely totally on the estimated travelling time; calculate extra time for lunch stops, game viewing, photograph opportunities, and the off-chance of a flat tyre.

If you aren't sure of the terrain you'll be travelling through, search for your location on Google Earth and turn on the *Photos* function. This will show you images that others have taken in the area, so you can see the exact condition of the roads, etc. Or use Google Earth to confirm the location of a waypoint, or to make sure that a track is, in fact, accessible.

Make sure that your GPS and MS/BC setting and software are exactly the same or you could have trouble transferring your routes onto your GPS.

Also remember to use the same map on BC for your route planning as you'll be using on your GPS for navigating. This sounds obvious but many people think you can use Garmap on BC and T4A on the GPS. This assumes that both Garmap and T4A have the same places, roads and information – which is not the case.

It is always wise to plot your route on paper maps, just in case. If your GPS fails, or is stolen, then you will still know how to get to where you are going. You can also print out the directions per day by double-clicking on the route in BC, and selecting the *Route Directions* tab in the window ⑪ .

If the route you're planning seems to take an unnecessary detour, zoom in! It often looks like a mistake or a bug in the system, but on closer inspection you may see that it's necessary because of a gate, or river, or private road, etc.

The maps are pretty up-to-date – but are never up to the minute. T4A releases a new version of the maps every six months to keep them as current as possible, but Johann Groenewald himself says, "A map is never complete."

Ask around. Speak to fellow travellers who have been there, or those you pass in the area. They will know from experience,

and there is never anyone more knowledgeable than a local. Take your time to ask about attractions in the area, or pretty roads, or secret spots.

FOR HELP

When you first open BC, there is a *Welcome to BaseCamp* tour that comes with the software. This will give you step-by-step guides for basic operations. You can also access this tour at a later date, as it's available in the *Help* drop-down menu. Click on *Video Tutorials*, which will direct you to the Garmin website which has many step-by-step videos on how to find what, where.

AFTER YOUR TRIP

If, during your trip, you've added useful waypoints to your GPS – such as a speed camera, washed-away bridge, or even a fantastic picnic spot – send them in to T4A.

All you need to do is plug your GPS into your computer, and select the device in the menu on the left hand side. You can then select *Receive from Device*, which will download the roads that you have driven, as well as all your speeds and times, etc.

If you then export these files, you can email them to T4A at newdata@tracks4africa.co.za to submit your new data. Remember that T4A is a community-run data source, and the more you send in, the more you get out of the final product. ■

CONTACT T4A

Call: 0861 55 33 22
Or visit: Unit 8, Innovation Centre 1, Meson Street, Technopark, Stellenbosch.
Or go to: www.tracks4africa.co.za or www.garmin.co.za

THANKS TO

Johann Groenewald, the managing director of T4A, for giving us helpful hints, and showing us the new software step-by-step.

GET THE MAPSETS

Tracks4Africa v13.10
SD card from Outdoor Warehouse and Cape Union Mart
R790

Internet download (www.tracks4africa.co.za/shop/)
R750

Garmap Sub Saharan-Africa Streetmaps 2013.2 NT
From Outdoor Warehouse, Cape Union Mart or
www.garmap.co.za/Products.aspx
R999

Update if you have a previous version of the map set
R349

If you have registered your T4A software on the T4A website, you qualify for a 50% discount on any new version of the software – but only if you download it from the website.

INTERESTED IN A BASECAMP BOOT CAMP?

If you are a formidable MS user, or have never even tried the new software, and are interested in learning the basics of the new BaseCamp software, email me at jess@sa4x4.co.za. If there's enough interest, we'll look at putting a course together.